

at the time the invention was made to substitute the rotatable valve of Wenglar for the valve of the known system and further alleges that the Wenglar valve "is capable of controlling liquid flow in substantially the same manner to produce substantially the same results." In making these allegations, the Examiner has made both legal and factual errors, and has failed to meet the Patent and Trademark Office's burden of establishing a *prima facie* case of obviousness.

It is now well settled that the burden of establishing a *prima facie* case of obviousness resides with the Patent and Trademark Office 35 USC § 132; *Ex Parte Skinner*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (B.P.A.I. 1987). To meet this burden, it is incumbent upon the Examiner to show some suggestion or teaching within the '511 patent or the art recited by the Applicant which would lead one skilled in the art to combine the various elements of the now rejected claims. Absent some teaching or suggestion in the '511 patent or the art recited by the Applicant to combine the elements of the now rejected claims, the Examiner cannot possibly hope to meet this burden. Since neither the '511 patent nor the art recited by the Applicant recites such a teaching or suggestion, the Examiner cannot meet the Patent and Trademark Office's burden of establishing a *prima facie* case.

The Examiner has made a factual error in his suggestion that the rotatable valve of Wenglar can be substituted for the valves disclosed in the prior art discussed by the Applicant, and has made further factual error alleging that the Wenglar valve "is capable of controlling liquid flow in substantially the same manner to produce substantially the same results." In fact, the Wenglar valve operates in a manner quite distinct from the present invention, and were the Wenglar valve substituted for the valve design of the present invention, it would render the present invention inoperable. At the outset, a cursory examination of the Wenglar valve shows it to be controlled by a sealed penetration in the side of a pipe in a sanitary pipe system. This sealed penetration relies on over a dozen interrelated parts to achieve a liquid tight seal, and Wenglar describes his pipe system as intended for use in large scale industrial operations, such as food processing. In contrast, the instant invention is concerned with purifying

microscopic samples of materials such as DNA nucleotides. While not limiting the present invention, the columns used in the present invention may range as small as 20-30 micrometers. The Applicant is at a loss to imagine how the intricate sealed penetration mechanisms shown in the Wenglar disclosure could be reproduced on the very small scales contemplated by the present invention. But even if such delicate engineering were possible, clearly, the Wenglar valve would still not produce the result desired, and claimed, by the present invention. The Wenglar valve is described as having a "fluid tight seal" when in a closed condition (see col. 4, line 15-20). Such a fluid tight seal renders the present invention inoperable. The Examiner's attention is drawn to the language contained within claim 1, page 26, line 9-11, which recites "permitting said fluid to flow therepast." Thus, the Examiner's assertion that the Wenglar valve "is capable of controlling liquid flow in substantially the same manner to produce substantially the same results" fails as a factual matter. However, even if the Wenglar valve could somehow be built at the scale contemplated by the present invention, and somehow operated to produce the results claimed in the present disclosure, the Examiner still could not set forth a prima facie case of obviousness because the only reference cited by the Examiner which remotely suggests such a combination is the Applicant's disclosure.

Examiner has conceded that the rod having a binary end is not disclosed in the prior art recited by the Applicant. The Applicant notes at the outset that it is precisely this simple design that allows the Applicant's invention to be fabricated at very small scales contemplated by the invention, and that this simple design is quite different than the Wenglar design. Nor does the art recited by the Applicant suggest the use of a rod having a binary end used in the manner and to achieve the result sought by the present invention. Thus, if the suggestion to combine these features is to be found, which is necessary for the Examiner to establish a prima facie case, the suggestion must be found in the Wenglar disclosure. Plainly, the Wenglar disclosure, being totally unconcerned with the problem the instant invention seeks to address, does not remotely suggest such

a combination. Therefore, the only suggestion which would lead one skilled in the art to combine these disparate elements is found in the Applicant's disclosure, and relying on the Applicant's disclosure to try to make a prima facie case of obviousness under 35 USC 103(a), is plainly impermissible, as it is classic hindsight reconstruction.

As set forth by the Federal Circuit in *In Re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780 (Fed. Cir. 1992):

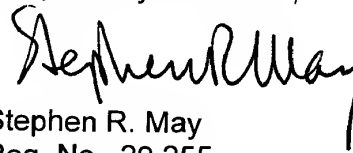
The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. . . It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

Accordingly, the Examiner has failed to set forth prior art references which teach all of the features necessary to produce the present invention, and has failed to establish a prima facie case for obviousness. The Examiner has instead ignored or mischaracterized the teachings of the Wenglar reference, and has further used such a mischaracterized version of Wenglar to engage in impermissible hindsight reconstruction. The Applicant therefore respectfully requests that the Examiner withdraw the objections and allow the application to issue to patent.

Closure

Applicant has made an earnest attempt to place the above referenced application in condition for allowance and action toward that end is respectfully requested. Should the Examiner have any further observations or comments, he is invited to contact the undersigned for resolution.

Respectfully submitted,



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